



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,236	05/04/2001	Ulrich R. Bernier	0148.01	7271

25295 7590 04/09/2003

USDA, ARS, OTT
5601 SUNNYSIDE AVE
RM 4-1159
BELTSVILLE, MD 20705-5131

EXAMINER

CHOI, FRANK I

ART UNIT	PAPER NUMBER
----------	--------------

1616

DATE MAILED: 04/09/2003

60

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/848,236

Applicant(s)

BERNIER ET AL.

Examiner

Frank I Choi

Art Unit

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 47,58,59,70,73-75,77-79,81,83-94,96 and 99 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

- 5) ☒ Claim(s) 47,70,73-75,86-89,93,94 and 99 is/are allowed.

- 6) ☒ Claim(s) 58,59,77-79,81,83-85,90-92 and 96 is/are rejected.

- 7) ☐ Claim(s) _____ is/are objected to.

- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Allowable Subject Matter

Claims 47,70,79,73,74,75,86,87,88,89,93,94 and 99 appear to be allowable.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 81 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Carlson et al. (Yellowfever Mosquitoes:Compounds Related to Lactic Acid that Attract Females).

Carlson et al. expressly discloses a composition containing glycolic acid and acetone falling within the scope of applicant's claims (Pg. 330, Laboratory Bioassay and Rating System, Table 1).

Examiner has duly considered Applicant's arguments but deems them unpersuasive.

Applicant acknowledges that glycolic acid is applied in acetone. The fact that the acetone is later evaporated and that carbon dioxide is later added does not take away from the fact that glycolic acid in acetone is expressly disclosed.

Claims 77,90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (Annals of the Entomological Society of America 1970) in view of Paganessi et al..

Smith et al. teaches that the combination of lactic acid and carbon dioxide is an effective mosquito attractant (Pg. 766).

Paganessi et al. (US Pat. 5,943,815) teach that the combination of acetone with carbon dioxide is an effective attractant for mosquitoes (Column 2, lines 53-68, Column 3, lines 1-25).

The difference between the prior art and the claimed invention is that the prior art does not expressly disclose compositions and methods of attracting mosquitoes consisting of lactic acid, acetone and carbon dioxide. However, the prior art amply suggests the same as it is known in the art that the combination of lactic acid or acetone, each with carbon dioxide is effective in attracting mosquitos. As such it would have been well within the skill of and one ordinary skill in the art would have been motivated to combine lactic acid, acetone and carbon dioxide with the expectation that the same would be effective in attracting mosquitoes.

Therefore, the claimed invention, as a whole, would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention has been collectively taught by the combined teachings of the references.

Claims 78,79,91,92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (Annals of the Entomological Society of America 1970) in view of Wilson et al..

Smith et al. teaches that lactic acid and that the combination of lactic acid and carbon dioxide is an effective mosquito attractant (Pg. 766).

Wilson et al. teaches that dimethyl disulfide is effective in attracting mosquitoes (Column 8, lines 44-60).

The difference between the prior art and the claimed invention is that the prior art does not expressly disclose compositions or methods for attracting mosquitoes consisting of lactic acid and dimethyl disulfide or lactic acid, dimethyl disulfide and carbon dioxide. However, the prior art amply suggests the same as lactic acid, lactic acid and carbon dioxide and dimethyl disulfide are known to be attractants for mosquitoes. As such, it would have been well within the skill of and one of ordinary skill in the art would have been motivated to modify the prior art as above with the expectation that the combination lactic acid and dimethyl disulfide and the combination of lactic acid, dimethyl disulfide and carbon dioxides would be effective in attracting mosquitoes. See *In re Kerkhoven*, 205 USPQ 1069, 1072 (CCPA 1980); *Ex parte Quadranti*, 25 USPQ2d 1071 (Bd. Pat. App. & Inter. 1992).

Therefore, the claimed invention, as a whole, would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention has been collectively taught by the combined teachings of the references.

Claims 83,96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (*Annals of the Entomological Society of America* 1970) in view of Carlson et al..

Smith et al. teaches that lactic acid and that the combination of lactic acid and carbon dioxide is an effective mosquito attractant (Pg. 766).

Carlson et al. teaches that lactic acid is an effective mosquito attractant and that glycolic acid in combination with carbon dioxide is an effective mosquito attractant (Pg. 330, Table 1, pg. 331).

The difference between the prior art and the claimed invention is that the prior art does not expressly disclose compositions and methods consisting of glycolic acid, carbon dioxide and

Art Unit: 1616

lactic acid.. However, the prior art amply suggests the same as lactic acid and carbon dioxide, and glycolic acid and carbon dioxide are known in the art to attract mosquitoes. As such, it would have been well within the skill of and one of ordinary skill in the art would have been motivated to modify the prior art as above with the expectation that the combination of glycolic acid, carbon dioxide and lactic acid would be effective in attracting mosquitoes. See *In re Kerkhoven*, 205 USPQ 1069, 1072 (CCPA 1980); *Ex parte Quadranti*, 25 USPQ2d 1071 (Bd. Pat. App. & Inter. 1992).

Therefore, the claimed invention, as a whole, would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention has been collectively taught by the combined teachings of the references.

Claims 58,59,84,85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (Annals of the Entomological Society of America 1970) in view of Kline et al. (J. am. Mosq. Control Assoc. 1998) and Wilson et al.

Smith et al. teaches that the combination of lactic acid and carbon dioxide is an effective mosquito attractant (Pg. 766).

Kline et al. teach that that the combination of butanone and carbon dioxide is effective in attracting mosquitoes (Abstract).

Wilson et al. teaches that dimethyl disulfide is effective in attracting mosquitoes (Column 8, lines 44-60).

The difference between the prior art and the claimed invention is that the prior art does not expressly disclose compositions or methods comprising or comprising essentially of lactic acid and butanone or lactic acid, butanone and dimethyl disulfide. However, the prior art amply

Art Unit: 1616

suggests the same as lactic acid, butanone and carbon dioxide and dimethyl disulfide are known to attract mosquitoes. As such, it would have been well within the skill of and one of ordinary skill in the art would have been motivated to modify the prior art as above with the expectation that the combination would be effective in attracting mosquitoes. See *In re Kerkhoven*, 205 USPQ 1069, 1072 (CCPA 1980); *Ex parte Quadranti*, 25 USPQ2d 1071 (Bd. Pat. App. & Inter. 1992).

Therefore, the claimed invention, as a whole, would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention has been collectively taught by the combined teachings of the references.

Conclusion


A facsimile center has been established in Technology Center 1600. The hours of operation are Monday through Friday, 8:45 AM to 4:45 PM. The telecopier numbers for accessing the facsimile machines are (703) 308-4556 or (703) 305-3592.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Choi whose telephone number is (703) 308-0067. Examiner maintains a flexible schedule. However, Examiner may generally be reached Monday-Friday, 8:00 am – 5:30 pm (EST), except the first Friday of the each biweek which is Examiner's normally scheduled day off.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Mr. José Dees, can be reached on (703) 308-4628. Additionally, Technology Center 1600's Receptionist and Customer Service can be reached at (703) 308-1235 and (703) 308-0198, respectively.

FIC

April 6, 2003


S. MARK CLARDY
PATENT EXAMINER
GROUP 1200
1616

